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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/533,280   | 04/28/2005  | Jie Lin              | CE00558UM           | 5919             |
| 22917  | 7590        | 02/09/2007           | EXAMINER            |                  |
| MOTOROLA, INC.<br>1303 EAST ALGONQUIN ROAD<br>IL01/3RD<br>SCHAUMBURG, IL 60196 |             |                      | NGUYEN, TUAN HOANG  |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 2618                |                  |

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE  | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS                               | 02/09/2007 | PAPER         |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

|                              |                            |                  |
|------------------------------|----------------------------|------------------|
| <b>Office Action Summary</b> | Application No.            | Applicant(s)     |
|                              | 10/533,280                 | LIN, JIE         |
|                              | Examiner<br>Tuan H. Nguyen | Art Unit<br>2618 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 14 November 2006.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-5,7-9,11-20 and 24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-5,7-9,11-20 and 24 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Response To Arguments***

1. Applicant's arguments, see applicant's remarks, filed on 11/14/2006, with respect to the rejection(s) of claims 1-5, 7-9, 11-20, and 24 under 35 U.S.C § 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Schiff (US PAT. 6,298,242) and Wiedeman et al. (US PAT. 6,272,325).

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
3. Claims 1-5, 7-8, 11, 16, 20, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schiff (US PAT. 6,298,242) in view of Wiedeman et al. (US PAT. 6,272,325 hereinafter, "Wiedeman").

Consider claim 1, Schiff teaches a method of power control for a transmitter in a cellular communication system comprising the steps of: determining power control data in response to a quality parameter of a communication between a base station and a communication unit, communicating the power control data between the base station and file communication unit (col. 10 lines 44-65); determining that a quality level of the communication between the communication unit and the base station cannot be achieved (col. 10 lines 44-65); in response to determining that a quality level off the communication between the communication unit and the base station cannot be achieved, entering a reduced power mode of operation by communicating power down power control data between the base station and the communication unit (see fig. 7 col. 14 line 47 through col. 15 line 8).

Schiff does not explicitly show that operating in the reduced power mode by communicating power control data corresponding to a reduced transmit power level that allows communication at a reduce data rate between the communication unit and the base station; and exiting the reduced power mode by communicating power up power control data between the base station and the communication unit.

In the same field of endeavor, Wiedeman teaches operating in the reduced power mode by communicating power control data corresponding to a reduced transmit power level that allows communication at a reduce data rate between the communication unit and the base station (col. 15 lines 35-43); and exiting the reduced power mode by communicating power up power control data between the base station and the communication unit (col. 15 line 60 through col. 16 line 9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use, operating in the reduced power mode by communicating power control data corresponding to a reduced transmit power level that allows communication at a reduce data rate between the communication unit and the base station; and exiting the reduced power mode by communicating power up power control data between the base station and the communication unit, as taught by Wiedeman, in order to reduce a low level of interference by reducing the transmitted power of the user terminal wherein assigning the user terminal to another frequency channel, assigning the user terminal to another time slot, changing a number of satellites through which the user terminal is communicating, or changing a data rate at which the user terminal is transmitting.

Consider claim 2, Wiedeman further teaches the power control is an uplink power control and the power control data is transmitted from the base station to the communication unit (col. 14 lines 50-63).

Consider claim 3, Wiedeman further teaches the power control is a downlink power control and the power control data is transmitted from the communication unit to the base station (col. 14 lines 50-63).

Consider claim 4, Wiedeman further teaches the reduced transmit power level is substantially zero (col. 3 lines 14-29).

Consider claim 5, Schiff further teaches the power control data communicated in the reduced power mode is power down control values (col. 10 lines 5-18).

Consider claim 7, Wiedeman further teaches the step of exiting comprises transmitting power up power control data until the transmit power corresponds to a power level determined in response to the quality parameter (col. 15 line 60 through col. 16 line 9).

Consider claim 8, Wiedeman further teaches the step of exiting comprises transmitting power up power control data until the transmit power corresponds to a power level corresponding to the power level prior to entering the reduced power mode (col. 15 line 60 through col. 16 line 9).

Consider claim 11, Schiff further teaches the step of determining that a transmit power of the transmitter exceeds a threshold and in response entering the reduced power mode (col. 10 lines 44-52).

Consider claim 16, Wiedeman further teaches the step of determining that a quality characteristic of a data communication between the communication unit and the

base station is improving and in response exiting the reduced power mode (col. 15 lines 35-43).

Consider claim 20, Schiff further teaches the steps of: determining an expected interference level for a plurality of communication units including the communication unit (col. 10 lines 34-65); determining a total expected interference level (col. 10 lines 44-52); and entering the communication unit into the reduced power mode if the total expected interference level exceeds a threshold (col. 10 lines 41-43).

Consider claim 24, Schiff teaches an apparatus for power control for a transmitter in a cellular communication system, the apparatus comprising: means for determining power control data in response to a quality parameter of a communication between a base station and a communication unit (col. 10 lines 44-65); means for communicating the power control data between the base station and the communication unit (col. 10 lines 44-65); means for determining that a quality level of the communication between the communication unit and the base station cannot be achieved (col. 10 lines 44-65); means for entering a reduced power mode of operation by communicating power down power control data between the base station and the communication unit, in response to the determining that a quality level of the communication between the communication unit and the base station can not be achieved (see fig. 7 col. 14 line 47 through col. 15 line 8).

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Schiff does not explicitly show that operating in the reduced power mode by communicating power control data corresponding to a reduced transmit power level that allows communication at a reduce data rate between the communication unit and the base station; and means for exiting the reduced power mode by communicating power up power control data between the base station and the communication unit.

In the same field of endeavor, Wiedeman teaches operating in the reduced power mode by communicating power control data corresponding to a reduced transmit power level that allows communication at a reduce data rate between the communication unit and the base station (col. 15 lines 35-43); and means for exiting the reduced power mode by communicating power up power control data between the base station and the communication unit (col. 15 line 60 through col. 16 line 9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use, operating in the reduced power mode by communicating power control data corresponding to a reduced transmit power level that allows communication at a reduce data rate between the communication unit and the base station; and means for exiting the reduced power mode by communicating power up power control data between the base station and the communication unit, as taught by Wiedeman, in order to reduce a low level of interference by reducing the transmitted power of the user terminal wherein assigning the user terminal to another frequency channel, assigning the user terminal to another time slot, changing a number of satellites through which the user terminal is communicating, or changing a data rate at which the user terminal is transmitting.

4. Claims 9, 12-15, and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schiff in view of Wiedeman and further in view of Damnjanovic et al. (U.S PUB. 2003/0050084 hereinafter, "Damnjanovic").

Consider claim 9, Schiff and Wiedeman, in combination, fails to teach a duration of the reduced power mode is less than a data re-transmission interval associated with the communication between the communication unit and the base station.

However, Damnjanovic teaches a duration of the reduced power mode is less than a data re-transmission interval associated with the communication between the communication unit and the base station (page 8 [0084]).

Therefore, it is obvious to one of ordinary skill in the art at the time the invention was made to incorporate the disclosing of Damnjanovic into view of Schiff and Wiedeman, in order to transmit power of a mobile station on the reverse link channel that carries channel state information, rate selection, and/or sector selection information is power controlled separately from the reverse link traffic channels when the mobile station is in soft handoff to reduce a low level of the interference.

Consider claim 12, Damnjanovic further teaches the step of determining that an interference level exceeds a threshold and in response entering the reduced power mode (page 13 [0113]).

Consider claim 13, Damnjanovic further teaches the step of determining that a propagation characteristic exceeds a threshold and in response entering the reduced power mode (page 13 [0113]).

Consider claim 14, Damnjanovic further teaches the propagation characteristic is a path loss of a communication link supporting the communication between the communication unit and the base station (page 3 [0036] through [0037]).

Consider claim 15, Damnjanovic further teaches the step of determining that a duration of the reduced power mode exceeds a threshold and in response exiting the reduced power mode (page 13 [0113]).

Consider claim 17, Damnjanovic further teaches the step of determining that an interference level is below a threshold and in response exiting the reduced power mode (page 7 [0075]).

Consider claim 18, Damnjanovic further teaches the step of determining that a propagation characteristic is below a threshold and in response exiting the reduced power mode (page 13 [0113]).

Consider claim 19, Damnjanovic further teaches the propagation characteristic is a path loss of a communication link supporting the communication between the communication unit and the base station (page 3 [0036] through [0037]).

***Conclusion***

5. Any response to this action should be mailed to:

Mail Stop \_\_\_\_\_ (Explanation, e.g., Amendment or After-final, etc.)

Commissioner for Patents

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Facsimile responses should be faxed to:

(571) 273-8300

Hand-delivered responses should be brought to:

Customer Service Window

Randolph Building

401 Dulany Street

Alexandria, VA 22313

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan H. Nguyen whose telephone number is (571)272-8329. The examiner can normally be reached on 8:00Am - 5:00Pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Maung Nay A. can be reached on (571)272-7882882. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information Consider the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuan Nguyen  
Examiner  
Art Unit 2618

*M. L. O.*  
NAY MAUNG  
SUPERVISORY PATENT EXAMINER